

Remarks

By this Amendment, the specification and claims 1, 3, 5, 7, 13, 17, 25, and 30 are amended, and new claims 31-39 are added. Reconsideration in view of the above amendments and the following remarks is respectfully requested.

In the Office action, claims 1-12 are rejected under 35 U.S.C. § 1.12, second paragraph, for alleged indefiniteness. Applicant respectfully submits that the amended claims clarify that claim 1 is directed to an adapter for use in a handpiece system. Therefore, the rejection of claims 1-12 should be withdrawn.

Claims 1-7, 13-19, 25-27, and 30 are rejected under 35 U.S.C. § 1.03(a) over EP 1 103 232 A1 (Bianchetti) in view of U.S. Patent No. 6,033,220 to Mosimann (Mosimann). This rejection is respectfully traversed.

As amended, claim 1 is directed to an adapter for use in a handpiece system that includes a supply conduit and a medical instrument having an electrical operating element. The adapter comprises an adapter body, and when the adapter is in place between the supply conduit and the medical instrument, electrical power is received by the adapter from the supply conduit and transmitted through the adapter to the operating element. The adapter is selectively switchable by a manual operation to match the polarity of the electrical power transmitted from the supply conduit to a plurality required by the operating element.

Similarly, independent claim 13 is directed to a light emitting apparatus and an adapter where the adapter is "selectively switchable by a manual operation to match the polarity of the electrical power transmitted from the supply conduit." Likewise, independent claim 25 as amended recites an adapter that is "selectively switchable by a manual operation to match the polarity." Independent method claim 30 is amended to recite "manually switching the switchable adapter" to reverse the polarity of power supplied.

As described in the specification, the claims are directed to approaches to solving the problem of safely and reliably connecting a polarity-dependent electrical component to a supply of power that allows for the correct polarity connection to be achieved quickly, inexpensively, and in a small form factor.

Contrary to the assertion in the Office action, the applied combination of references does not teach or even suggest an adapter selectively switchable by a manual operation and/or the act of manually switching a switchable adapter. As acknowledged in the Office action, Bianchetti

fails to disclose that the structure regarded as the adapter is selectively switchable to match the polarity required by a component connected to the adapter. Moreover, Bianchetti is entirely silent as to the problem of matching polarity. Mosimann fails to overcome this deficiency in Bianchetti. Indeed, Mosimann is entirely silent as to the need to maintain a selected polarity of a connection (neither applied reference includes any instance of the terms "polar" and/or "polarity"). Therefore, even if one of ordinary skill in the art would have been motivated to combine Mosimann with Bianchetti, the resulting structure and method would not teach the claimed adapter that is selectively switchable by a manual operation and/or the act of manually switching the adapter to reverse an incorrect polarity. Accordingly, withdrawal of the rejection is respectfully requested.

Claims 1, 8-12, 13, 20-25, 28, and 29 are rejected under 35 U.S.C. § 103(a) over Bianchetti in view of U.S. Patent No. 3,042,835 to Badger (Badger). This rejection is respectfully traversed. As amended, independent claims 1, 13, and 25 recite an adapter that is "selectively switchable by a manual operation" to match polarity. Independent claim 30 recites the act of "manually switching the switchable adapter" to reverse an incorrect polarity. The applied combination of references, however, does not teach or even suggest this feature. As claimed, the approach to ensuring that a polarity-dependent electrical component connected to a supply of power is addressed by providing a reliable adapter that can be manually switched by an operator yet is simple to manufacture and relatively inexpensive. In addition, the adapter is amenable to sterilization by normal procedures.

By way of contrast, Badger teaches, at most, an automatic approach to polarity sensing that requires a dedicated internal circuit with a number of components. Further, Badger's polarity sensing does not relate to protecting the lighting element, but rather is directed to providing voltage of a proper polarity to transistors. Accordingly, to the extent that the Badger engine timing light can be combined with the Bianchetti dental device, which is assumed but not admitted, the resulting combination still would not teach or suggest the claimed adapter which is selectively switchable by a manual operation and/or the act of manually switching the adapter to reverse an incorrect polarity. Accordingly, because the applied combination does not teach or suggest the claimed invention, the rejection should be withdrawn.

The specification has been amended to correct several minor informalities. Claim 3 is amended to change "said operating element" to "the operating element." Claim 5 is amended for

proper antecedent basis. Claim 7 is amended to emphasize that the adapter body is configured to accommodate lines for the transmission of fluids or drive energy extending through the adapter body. Claim 17 is amended to depend from claim 13 instead of claim 15.

New dependent claims 31-34, which depend from independent claims 1, 13, 25, and 30, respectively, recite that the adapter is selectively switchable by rotating at least a portion of the adapter body (claim 31), by rotation (claims 32 and 33), and rotating the adapter (claim 34). Thus, these claims define specific manual operations that an operator can execute to selectively switch the adapter from one polarity to another polarity. No new matter has been added. It is pointed out that the assembly of Fig. 4 shown in EP 1 103 232, i.e., the handpiece 103, outer connector 110, "adapter" 101 and the attached conduit, are fixedly connected, so although some overall rotation may be possible, rotation of any of these components relative to the others is not, and repeated rotation would lead to early failure.

New independent claims 35-38 are similar to amended claims 1, 13, 25 and 30, respectively, but also recite that the adapter includes first and second transmission leads and respective slide contacts. New claims 35-38 are believed to be allowable for at least the same reasons as expressed above for claims 1, 13, 25 and 30. In addition, none of the prior art of record shows the additional features of claims 35-38, including slide contacts connected to transmission lines of the adapter.

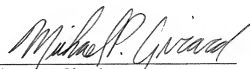
New dependent claim 39 is added to define one implementation of the adapter positionable within a sleeve.

Based on the foregoing, Applicant respectfully submits that the claims are directed to allowable subject matter and that the application is in condition for allowance. Should the examiner believe that anything further is necessary to place this application in better condition for allowance, the examiner is requested to Applicant's representative by telephone.

Respectfully submitted,

KLARQUIST SPARKMAN, LLP

By


Michael P. Girard
Registration No. 38,467

One World Trade Center, Suite 1600
121 S.W. Salmon Street
Portland, Oregon 97204
Telephone: (503) 595-5300
Facsimile: (503) 228-9446